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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,279	07/23/2001	Caroline M. Ylitalo	56473US002	4080

7590 10/04/2002  
Attention: Bradford B. Wright  
Office of Intellectual Property Counsel  
3M Innovative Properties Company  
P.O. Box 33427  
St. Paul, MN 55133-3427

EXAMINER
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BERMAN, SUSAN W

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 10/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/911,279

Examiner

Susan W Berman

Applicant(s)

YLITALO ET AL.

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1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 12-19, 21-29 and 33 is/are rejected.
- 7) ☒ Claim(s) 2-11, 20 and 30-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 33 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear from the claim language "radiation curable clear coat" whether applicant intends to claim a curable composition for obtaining a clear coat or a cured clear coat obtained by radiation curing a curable composition.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 12, 13, 18, 19, 21, 23, and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Held (5,852,075). Held discloses a surfactant system for ink jet inks containing an aqueous carrier and a colorant. The surfactant system comprises a siloxane surfactant and a fluorinated surfactant. See column 6, line 41, to column 7, line 47. See surfactant no. 4 in Table 1. It would have been obvious to one skilled in the art to select surfactant no. 4 from the fluorinated surfactants disclosed by Held because Held uses a fluoroalcohol substituted monoether with polyethylene glycol in the examples (see Ink preparations 2, 3 and 4). It would have been obvious to one skilled in the art to substitute a

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fluorinated surfactant containing 4 carbon atoms instead of the surfactant containing 6 carbon atoms in the perfluoralkyl group taught by Held, with the expectation of obtaining similar surfactant properties, in the absence of evidence to the contrary. With respect to claims 23 and 26-28, it would have been obvious to one skilled in the art to employ the ink compositions disclosed by Held in a method of ink jet printing comprising ejecting the ink compositions from an ink jet printhead onto a substrate because Held teaches that the disclosed compositions are suitable inks for ink jet printers.

Claims 1, 12, 13, 18, 19, 21, 22, 23, and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 974 626 A1. EP '626 discloses aqueous pigmented inks for ink jet printing on vinyls. The inks comprise an aqueous vehicle, an insoluble colorant, a polymeric dispersant, and a silicon or fluorinated surfactant. See page 6. See surfactant no. 4 in Table 1 and Examples 1-4. It would have been obvious to one skilled in the art to select surfactant no. 4 from the fluorinated surfactants disclosed by EP '626 because EP '626 teaches that a fluoroalcohol substituted monoether with polyethylene glycol or telomer B monoether with polyethylene glycol are preferred. It would have been obvious to one skilled in the art to substitute a fluorinated surfactant containing 4 carbon atoms instead of the surfactant containing 6 carbon atoms in the perfluoralkyl group taught by EP '626, with the expectation of obtaining similar surfactant properties, in the absence of evidence to the contrary.

Claims 1, 14-17, 19, 21-29 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caiger et al (6,114,406) in view of Held or EP '626. Caiger et al disclose radiation curable ink compositions comprising acrylate monomers and oligomers, a photoinitiator and a fluorosurfactant. Caiger et al teach that suitable surfactants are preferably non-ionic and use fluoro surfactants in the examples (column 3, lines 52-55). Held and EP '626 each disclose fluorinated surfactants analogous to the third formula set forth in claim 1.

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It would have been obvious to one skilled in the art to employ the fluorinated surfactants taught by Held or by EP '626 as the fluoro surfactant in the ink compositions disclosed by Caiger et al. Caiger et al teach that the surfactant is preferably a nonionic surfactant and a fluoro surfactant. Caiger et al do not limit the surfactants to those specifically used in the examples. It would have been obvious to one skilled in the art to select surfactant no. 4 from the fluorinated surfactants disclosed by EP '626 because EP '626 teaches that a fluoroalcohol substituted monoether with polyethylene glycol or telomer B monoether with polyethylene glycol are preferred. It would have been obvious to one skilled in the art to substitute a fluorinated surfactant containing 4 carbon atoms instead of the surfactant containing 6 carbon atoms in the perfluoralkyl group taught by EP '626, with the expectation of obtaining similar surfactant properties, in the absence of evidence to the contrary.

#### *Allowable Subject Matter*

Claims 2-11, 20, and 30-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Ahlbrecht et al (2,803,615) disclose polymers of fluorocarbon (meth)acrylate esters containing a perfluorocarbon tail containing 4 to 12 fully fluorinated carbon atoms. However, there is no suggestion to employ the disclosed polymers as surfactants in an ink compositions for ink jet printing. The polymers are employed in a latex sizing solution for fabrics.

#### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Falk (4,089,804) discloses a method of improving fluorinated surfactants by employing a fluorinated synergist containing a perfluorinated aliphatic group.

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It would have been obvious to one skilled in the art to employ the fluorinated surfactants taught by Held or by EP '626 as the fluoro surfactant in the ink compositions disclosed by Caiger et al. Caiger et al teach that the surfactant is preferably a nonionic surfactant and a fluoro surfactant. Caiger et al do not limit the surfactants to those specifically used in the examples. It would have been obvious to one skilled in the art to select surfactant no. 4 from the fluorinated surfactants disclosed by EP '626 because EP '626 teaches that a fluoroalcohol substituted monoether with polyethylene glycol or telomer B monoether with polyethylene glycol are preferred. It would have been obvious to one skilled in the art to substitute a fluorinated surfactant containing 4 carbon atoms instead of the surfactant containing 6 carbon atoms in the perfluoralkyl group taught by EP '626, with the expectation of obtaining similar surfactant properties, in the absence of evidence to the contrary.

#### *Allowable Subject Matter*

Claims 2-11, 20, and 30-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Ahlbrecht et al (2,803,615) disclose polymers of fluorocarbon (meth)acrylate esters containing a perfluorocarbon tail containing 4 to 12 fully fluorinated carbon atoms. However, there is no suggestion to employ the disclosed polymers as surfactants in an ink compositions for ink jet printing. The polymers are employed in a latex sizing solution for fabrics.

#### *Information Disclosure Statement*

The copending application cited on the Information Disclosure Statements filed 08-27-2001 and 03-21-2002 have been considered, however, the citations have been lined out because they are not published documents proper for printing on the face of an issued patent.

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**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Falk (4,089,804) discloses a method of improving fluorinated surfactants by employing a fluorinated synergist containing a perfluorinated aliphatic group.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W Berman whose telephone number is 703 308 0040. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703 308 2462.

The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9310 for regular communications and 703 872 9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0661.



Susan W Berman

Primary Examiner

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SB  
October 1, 2002